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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,001	06/03/2002	Yinghui Dan	38-21(15648)	7199

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EXAMINER	
ROBINSON, KEITH O NEAL	
ART UNIT	**PAPER NUMBER**
1638	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/064,001	DAN ET AL.	
	Examiner	Art Unit	
	Keith O. Robinson, Ph.D.	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The amendments of claims 1 and 13, filed May 17, 2006, have been received and entered in full.

2. Claims 1-16 are pending.

Response to Arguments

3. Applicant's arguments, see 'Remarks', page 5, filed May 17, 2006, with respect to the 35 USC § 112, first paragraph rejection, for lack of enablement, of claims 1-16 on pages 2-4 of the Office Action mailed November 22, 2005 have been fully considered and are persuasive. The rejection has been withdrawn.

New Claim Rejections - 35 USC § 112, second paragraph

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims do not appear to further limit claims 1 and 13, respectively, as amended or are now indefinite in view of the amendments.

Claim Rejections - 35 USC § 102

6. Claim 1 remains rejected under 35 U.S.C. 102(b) as being anticipated by Fry et al (US Patent 5,631,152, 1997). The rejection is repeated for reasons of record as set

forth in the Office Action mailed November 22, 2005 (see pages 4-5). Applicant's arguments filed May 17, 2006 have been fully considered, but they are not persuasive.

Applicant argues that the amended claims are directed to methods of generating multiple plants from a single explant via direct organogenesis and that Fry et al do not teach or suggest this specific method (see page 6 of 'Remarks' filed May 17, 2006).

This is not persuasive. There is no evidence in Fry et al that discloses that multiple transgenic wheat plants cannot be produced from a single explant. In addition, Applicant's amendments to the claim still read on the method as disclosed by Fry et al.

Claim Rejections - 35 USC § 103

7. Claims 2-16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al (Plant Cell Reports 15: 159-163, 1995), in view of Tegeder et al (Plant Cell Reports 15: 164-169, 1995), further in view of Weeks et al (Plant Physiol. 102: 1007-1084, 1993), still further in view of Cheng et al (Plant Physiol. 115: 971-980, 1997). The rejection is repeated for reasons of record as set forth in the Office Action mailed November 22, 2005 (see pages 5-7). Applicant's arguments filed May 17, 2006 have been fully considered but are not persuasive.

Applicant argues that none of the above cited references, alone or in combination, teach or suggest the claimed method (see page 6 of 'Remarks' filed May 17, 2006).

This is not persuasive. The combined references together teach all the limitations of the claimed method, as stated in the previous Office Action mailed November 22, 2005 (see pages 5-7).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The scope and contents of the prior art are taught by Zhou et al wherein Zhou et al teach a method for producing a transgenic wheat plant comprising an explant, culturing said explant in a bud inducing media, introducing exogenous DNA via particle bombardment, removing buds and transferring to a media suitable for induction of elongation of buds into shoots, harvesting and transferring said shoots to a media that promotes root development, and culturing the transformed shoots to produce plants (see page 160, first column, paragraphs 1-4). Zhou et al also teach the use of picloram as an auxin (see page 160, first column, first paragraph) and selection for plants containing a protein conferring resistance to a selection agent (see page 160, fifth and sixth paragraphs).

The differences between the prior art and the claims at issue are that Zhou et al do not teach the use of cytokinins, the use of meristems containing the scutellar node, or *Agrobacterium*-mediated transformation. However, Tegeder et al teach that cultivation of protocalluses on medium supplemented with the cytokinin thidiazuron resulted in shoot development (see page 164, Abstract), Weeks et al teach use of scutella for wheat cell culture (see page 1078, first column, second paragraph) and

Cheng et al teach the use of *Agrobacterium*-mediated transformation in wheat (see page 972, first column, second paragraph to second column, end of second paragraph).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the teachings of Zhou et al, Tegeder et al, Weeks et al and Cheng et al to develop a method for producing a transgenic wheat plant and one of ordinary skill in the art would have a reasonable expectation of success based on the success of Zhou et al in developing a method for transforming wheat (see page 160, first column, paragraphs 1-7).

Obvious Type Double Patenting

8. Claim 1 remains rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of U.S. Patent No. 5,631,152. The rejection is repeated for reasons of record as set forth in the Office Action mailed November 22, 2005 (see pages 7-8).

It is noted that Applicant did not provide any arguments for the above rejection; thus the rejection is maintained as set forth in the Office Action mailed November 22, 2005, pages 7-8, is maintained.

Conclusion

9. No claims are allowed.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith O. Robinson, Ph.D. whose telephone number is 571-272-2918. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Keith O. Robinson, Ph.D.

July 26, 2006

DAVID H. KRUSE, PH.D.
PRIMARY EXAMINER